Amendments to the Specification:

1. Please **replace** the following amended paragraph for the pending paragraph beginning on page **9,** line **5:**

Figures [[9A and 9B]] 9A, 9B, and 9C are flow diagrams which set forth two different combinations of steps for estimating the parameters α, β, γ, and δ of an alpha-stable distribution;

2. Please **replace** the following amended paragraph for the pending paragraph beginning on page **40,** line **13:**

In another embodiment, [[Figure 9B sets]] Figures 9B and 9C set forth another combination of steps 950-961 that can be performed to estimate the parameters α, β, γ, and δ of an alpha-stable distribution. More specifically, the estimator of the parameters is a weighted empirical characteristic function estimator (see Table 10). It is known to perform an empirical characteristic function method without performing the steps 955, 956, 960, and 961. Advantageously, the additional steps 955, 956, 960, and 961 greatly reduce the variance of the estimates of the parameters. It will be appreciated by those skilled in the art that it may be advantageous to iterate through steps 955, 956, 960, and 961 more than once to yield better estimates.

3. Please **replace** the following amended paragraph for the pending paragraph beginning on page **41,** line **1:**

The embodiment shown in [[Figure 9B]] Figures 9B and 9C first observes a data sample S (e.g., signal block x_{i-l}) with the switch 118 in operating position B. Since the characteristic function is the Fourier transform of the pdf of a distribution, it is necessary to select some frequencies (i.e. arguments of the characteristic

function) to use for estimation. At step 950, the set of frequencies $[t_1, t_2, \cdots, t_m]$ is chosen to be a sequence of positive real numbers. The numbers are chosen to be positive in order to simplify the presentation of subsequent steps of the estimation procedure. However, it is important that the numbers be unique and non-zero. A good choice for these numbers has been found to be [0.05, 0.10, 0.15, ..., 0.90, 0.95, 1.0].

4. Please **replace** the following amended paragraph for the pending paragraph beginning on page **41**, line **21**:

Since the residuals in this regression are correlated, good estimates are not expected unless a weighting matrix is employed to decorrelate them. However, the extent of the correlation depends on the values of the characteristic exponent and dispersion parameters, which are what is being estimated. Therefore, an iterative solution procedure is employed in which the weighting matrix and the parameters are alternately estimated. The solution procedure is initialized at step 951 by assuming that the weighting matrix is the identity matrix. New parameter estimates are obtained at step 954. Using these parameters a new weighting matrix is determined at step 955. At step 956, a more accurate set of parameter estimates is produced. It is possible to iterate this procedure a number of times. However, it has been found that a single iteration (as shown in [[Figure 9B]] Figures 9B and 9C) usually provides most of the improvement in the estimates that can be obtained.